

### **ABSTRACT**

There is provided a method of identifying DNA responsible for conferring a particular phenotype in a cell which method comprises a) constructing a cDNA or genomic library of the DNA of ~~said~~ the cell in a suitable vector in an orientation relative to a promoter(s) capable of  
5 initiating transcription of ~~said~~ the cDNA or DNA to double stranded (ds) RNA upon binding of an appropriate transcription factor to ~~said~~ the promoter(s), b) introducing ~~said~~ the library into one or more of ~~said~~ the cells comprising ~~said~~ the transcription factor, and c) identifying and isolating a particular phenotype of ~~said~~ the cell comprising ~~said~~ the library and identifying the DNA or cDNA fragment from ~~said~~ the library responsible for conferring ~~said~~ the phenotype. Using this  
10 technique it is also possible to assign function to a known DNA sequence by a) identifying a homologue(s) of ~~said~~ the DNA sequence in a cell, b) isolating the relevant DNA homologue(s) or a fragment thereof from ~~said~~ the cell, c) cloning ~~said~~ the homologue or fragment thereof into an appropriate vector in an orientation relative to a suitable promoter(s) capable of initiating transcription of dsRNA from ~~said~~ the DNA homologue or fragment upon binding of an  
15 appropriate transcription factor to ~~said~~ the promoter(s) and d) introducing ~~said~~ the vector into ~~said~~ the cell from step a) comprising ~~said~~ the transcription factor.